

AFEM 1990 Term Projects

F. Abedzadeh, F. Ji and H. Lofti

Parametrized Variational Formulation of Plane Elasticity with In-Plane Rotation as Independent Field

S. Al-Kaabi, M. Baishya and D. MacCollum

SOLIDS: A Three Dimensional Finite Element Program

K. Alvin, H. de la Fuente and B. Haugen

Extended Free Formulation Membrane Triangle with Drilling Degrees of Freedom

F. DeLort-Laval and F. Hemez

On the Equivalence of ANS/ANDES, FF and DKT Plate Elements

A. Gobert and D. Horton

Infinite Axisymmetric Elements Applied to a Foundation Problem

T. Kohl, M. Hasheminejad and J. Spivak

Axisymmetric Finite Element Modelling of Semi-Infinite Composite Tubes

B. Lewis and S. Sutherland

Development of a Three Node Plane Stress Triangle with Midside Drilling Degrees of Freedom

C. Perchinelli and I. Stevenson

Large Deflection of a Thin Plate: An Analytical and Experimental Project

J. Schuler

Infinite Axisymmetric Elements for Electromagnetostatics

J. Teigen

12-dof Equilibrium Hybrid Triangular Plate Element

G. Thorwald and J. Hardaway

Supertruss Finite Element

S. Zurquiyah, J. M. Rousset and M. Lesoinne

Matrix Representation of Elasticity Formulation Including Incompressibility

AFEM 1992 Term Projects

M. Barlow, G. Hayman and D. Vandenbelt

Universal Template for C^0 9-dof Plate Bending Triangle

S. Barzegharmehrabi and S. Hendawi

Application of t -Generalized Hybrid Elements to Incipient Collapse Analysis

Li Cao

Elastic Stress Analysis Model of Concrete Decks for Deck-Girder Bridges

J. Cervenka and S. Keating

Loubignac-Cantin-Nakasawa Mixed Iterative Method for 4-Node and 10-Node Hu-Washizu Formulated Tetrahedral Elements

P. S. Chen

Development and Implementation of the Quadratic Wedge Element

Y. C. Chung, Y. Li and Y. H. Park

Implementation of Long Zhifei's Semiloof Quadrilateral Kirchhoff Plate Element

C. Dobosz, R. Partch, S. Ruta and E. Swensen

Universal Template for All 9-dof C^1 Plate Bending Triangles

R. B. Garnett

Comparison of the Finite Element and Finite Difference Methods as Applied to the Problem of Axisymmetric, Transient Heat Conduction in an Orthotropic Material

M. Jensen and M. Province

The 4-Node Plane Stress Rectangle with Drilling Freedoms based on the ANDES Formulation

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G. Brown

Template for a Four-node Plane Stress Quadrilateral by Free Formulation

B. Cox, P. Hoffecker and S. Philipsen

An Axisymmetric Line Element Model of a Cylindrical Shell under Internal Pressure

B. Fuehrer and A. Wesenberg

Implementation and Investigation of Residual Bending Flexibility Applied to a 4-node C^0 ANS element

E. Gharaibeh and T. A. Saba

Development of a 18-node Brick Element

B. Ghorbani and Q. Tan

Free vibration Frequency Analysis for Axisymmetric Solid Body

U. Gumaste and B. Jeremic

ANDES Element: Quadrilateral with Drilling DOFs

R. Jonsson and A. Lunke

A 3-node, 9-DOF Triangular Element with Drilling Freedoms for SOR analysis

J. Korpela, R. Ravello and A. Robertson

Performance Evaluation of Selected C^0 and C^1 Plate Bending Elements

B. K. Nguyen

Axisymmetric Finite Element Analysis of a Ceramic Matrix Composite Cylinder

R. Zhang

Development of Beam and Plate Element with Discrete-Element Methods

AFEM 1998 Term Projects

Aaron Adler and Olafur Olafsson

Mixing Plate and Beam Elements

Jeramy Ashlock

Complete Dynamic Soil-Structure Interaction Analysis.

(related to Ph D thesis in CVEN)

Gordan Gjerapic

FEM Treatment of a Moving Boundary Problem in Pollutant Dispersion.

(related to Ph D thesis in CVEN)

Koroush Iranpour-Tehrani and Chaiwat Klumpon

Vibration Analysis of a Telescope Mirror Support Structure.

(related to MS Thesis in ASEN)

Kendall Pierson

Object Oriented Design of Finite Elements

Susan Tower

*Study of Creep Effects on Flip-Chip Solder Joint Reliability Using
Finite Element Methods*

(related to Ph D thesis in MCEN)

Chris Zeller, Lara Counts and Randy Goodman

Thermal Elements for FEM Analysis

AFEM 2003 Term Projects

Fatemah Ali

The Use of Isoparametric Finite Elements in Solving Stress Concentration in Holed Plates
(related to Ph D thesis in CVEN)

Hussein Al Quatani

Dispersion Curves for Infinite Plate
(related to Ph D thesis in MCEN)

Yu Bao

Three-Dimensional Nonlinear FEM Analysis of Vertically Loaded Piled Raft

Jason Jonkman

Development of a Pretwisted Beam Finite Element.
(related to Ph D thesis in ASEN)

Rae Young Jung, William Gibson and Xue Yue

Hierarchical Finite Elements

Joe Pajot and Michael Rauli

Stability Analysis of MEMS Devices Through Eigenvalues.
(related to Rauli's Ph D Thesis in ASEN)

AFEM 2006 Term Projects

Jochem Carl, Dana Müller-Hoeppe and Morgan Meadows

Comparison of Tetrahedral and Brick Elements for Elastic Analysis

Peter Gray and Vivek Kaila

Axisymmetric Anisotropic FEM

Michael Howard, Cory Rupp and Gary Weickum

A Linear Layered Triangular Thin Shell Element for the CAS FEM Code

(related to Ph D thesis in ASEN)

Luis Rodriguez de Tembleque Solano

An Algorithm for Interfacing Non-Matching FEM Meshes

(related to project in ASEN)

Rui Wang

A Multi-field Bidirectional Fluid Structure Interaction for Human Artery

(related to Ph D thesis in MCEN)